

What is claimed is:

1. An enameled wire comprising:
a core wire of copper or a copper alloy;
an insulating coated layer covering said core wire; and
a melting layer covering said insulating coated layer;
wherein said insulating coated layer is formed of a material which absorbs a laser beam.
2. The enameled wire of claim 1, wherein said material absorbing the laser beam is a colored resin.
3. The enameled wire of claim 1, wherein said material is colored with a dye or a pigment.
4. The enameled wire of claim 1, wherein said melting layer is transparent to said laser beam.
5. The enameled wire of claim 1, wherein said melting layer softens or melts by heat.
6. The enameled wire of claim 1, wherein said laser beam is oscillated from one of a CO₂ laser, a YAG laser and a semiconductor laser.
7. A method of soldering an enameled wire comprising the steps of:
irradiating a laser beam to an enameled wire comprising:
a core wire made of copper or a copper alloy;
an insulating coated layer covering said core wire, said coated layer being made of a material which absorbs the laser beam; and
a melting layer covering said insulating coated layer;
stripping at least a part of said insulating coated layer by the laser beam;

and

soldering said core wire to a soldering portion by the laser beam.

8. The method of soldering an enameled wire of claim 7, wherein said soldering portion has a same shape with that of said laser beam spot.

9. The method of soldering an enameled wire of claim 7, wherein a size of said soldering portion is approximately identical to a diameter of said laser beam.

10. The method of soldering an enameled wire of claim 7, further comprising a step of providing an empty space underneath the soldering portion of a soldering land.

11. An electro-acoustic transducer comprising:

A: a plate having a center pole;

B: a coil disposed on said plate, said coil being formed of an enameled wire comprising a core wire made of copper or a copper alloy metal, an insulating coated layer formed of a laser beam-absorbing material covering said core wire and a melting layer covering said insulating coated layer;

C: a terminal for connection with said enameled wire molded with a resin with at least a soldering portion exposed outside;

D: a magnet fixed on said plate;

E: a diaphragm disposed above said magnet with a space to said center pole, said diaphragm having a magnetic material disposed thereon; and

F: a resin-mold body having an empty space in at least a part underneath said soldering portion of said terminal.